AMENDMENTS TO THE CLAIMS

1   1.   (Original)   A method of debugging an application program from a

2   workstation, wherein the application program resides on a server that is remote from the

3   workstation, the method comprising:

4   invoking the application program from the workstation via a network interface;

5   displaying a user frame at the workstation that includes information generated by the

6   application program;

7   providing a debug view option at the workstation for generating a debug frame of the

8   application program; and

9   displaying the debug frame at the workstation when the debug view option is selected,

10   wherein the debug frame includes information about one or more components of

11   the application program.

1   2.   (Original)   The method of Claim 1 further comprising:

2   providing a user view option at the workstation for generating the user frame; and

3   displaying the user frame when the user view option is selected.

1   3.   (Original)   The method of Claim 1 wherein displaying the debug frame at the

2   workstation includes providing a list of variable names in the application program.

1   4.   (Original)   The method of Claim 3 wherein displaying the debug frame at the

2   workstation includes providing at least one of: a list of request information variable names in the

3   application program, or a list of session information variable names in the application program.

1   5.   (Original)   The method of Claim 3, wherein one or more of the variable names

2   represents a corresponding object, the method further comprising:

3   selecting one of the variable names; and

4   providing information about the object corresponding to the variable name on the debug

5   frame.

1   6.   (Original)   The method of Claim 5 wherein the information about the object
2   includes at least one of: the fields of the object, the methods associated with the object, or the
3   constructors associated with the object.

1   7.   (Original)   A computer readable storage media comprising:
2   computer instructions to implement the method of claim 1.

1   8.   (Original)   A signal in a carrier medium comprising:
2   computer instructions to implement the method of claim 1.

1   9.   (Original)   A method of debugging an application program from a
2   workstation, wherein the application program resides on a server that is remote from the
3   workstation, the method comprising:
4   executing the application program on the server when the application program is invoked
5   from the workstation;
6   generating information for a user frame at the workstation that includes information
7   generated by the application program; and
8   generating information for a debug frame at the workstation when a debug view option is
9   selected from the workstation, wherein the debug frame includes information
10   about components of the application program.

1   10.   (Original)   The method of Claim 9 wherein generating information for the
2   debug frame includes saving the information for the user frame when the debug view option is
3   selected.

1   11.   (Original)   The method of Claim 10 further comprising restoring the saved
2   information for the user frame when a user view option is selected at the workstation.

1   12.   (Original)   The method of Claim 9 wherein generating information for the
2   debug frame includes generating a list of components of the application program.

1   13.   (Original)   The method of Claim 9 wherein generating information for the
2   debug frame includes generating at least one of: a list of variables in the application program, a

3   list of methods associated with one or more of the variables in the application program, or a list

4   of constructors associated with one or more of the variables in the application program.

1   14.   (Original)   The method of Claim 9 wherein generating information for the

2   debug frame includes using reflection technology to generate at least one of: a list of variables in

3   the application program, a list of methods associated with one or more of the variables, and a list

4   of constructors associated with one or more of the variables.

1   15.   (Original)   A computer readable storage media comprising:

2   computer instructions to implement the method of claim 9.

1   16.   (Original)   A signal in a carrier medium comprising:

2   computer instructions to implement the method of claim 9.

1   17.   (Original)   An apparatus for debugging an application program from a

2   workstation, wherein the application program resides on a server that is remote from the

3   workstation, the method comprising:

4   means for invoking the application program from the workstation;

5   means for presenting a user frame at the workstation that includes information generated

6   by the application program;

7   means for presenting a debug view option at the workstation to generate a debug frame of

8   the application program; and

9   means for presenting the debug frame at the workstation when the debug view option is

10   selected.

1   18.   (Original)   The apparatus of Claim 17 further comprising:

2   means for presenting a user view option at the workstation for generating the user frame;

3   and

4   means for presenting the user frame when the user view option is selected.

1   19.   (Original)   The apparatus of Claim 17 wherein the debug frame at the

2   workstation includes presenting a list of components of the application program.

1   20.   (Original)   The apparatus of Claim 17, wherein one or more of the

2 components represents a corresponding object, the apparatus further comprising:

3   means for selecting one of the objects; and

4   means for presenting information about the selected object, wherein the information

5   about the object includes at least one of: the name of the object, the fields of the

6   object, the methods associated with the object, or the constructors associated with

7   the object.

1   21.   (Original)   An apparatus for debugging an application program from a

2 workstation, wherein the application program resides on a server that is remote from the

3 workstation, the method comprising:

4   means for executing the application program on the server when the application program

5   is invoked from the workstation;

6   means for generating information for a user frame at the workstation that includes

7   information generated by the application program; and

8   means for generating information for a debug frame at the workstation when a debug

9   view option is selected from the workstation, wherein the debug frame includes

10   information about components of the application program.

1   22.   (Original)   The apparatus of Claim 21 wherein the means for generating

2 information for the debug frame includes means for saving the information for the user frame

3 when the debug view option is selected.

1   23.   (Original)   The apparatus of Claim 22 further comprising means for restoring

2 the saved information for the user frame when a user view option is selected at the workstation.

1   24.   (Original)   The apparatus of Claim 21 wherein the means for generating

2 information for the debug frame includes means for generating a list of objects in the application

3 program.

1   25.   (Original)   The apparatus of Claim 24 wherein the means for generating

2 information for the debug frame includes at least one of: means for generating a list of methods

3   associated with one or more of the objects in the application program, or means for generating a

4   list of constructors associated with one or more of the objects in the application program.

1   26.   (Original)   The apparatus of Claim 24 wherein the means for generating

2   information for the debug frame includes using reflection technology to generate at least one of:

3   a list of objects in the application program, a list of methods associated with one or more of the

4   objects, and a list of constructors associated with one or more of the objects.

1   27.   (Original)   The apparatus of Claim 24 further comprising:

2   means for providing the list of objects to the workstation when the debug view option is

3   selected at the workstation.

1   28.   (Original)   The apparatus of Claim 25 further comprising:

2   means for providing at least one of: a list of names of the objects, a list of fields of at

3   least one of the objects, a list of values of at least one of the objects, the list of

4   methods associated with at least one of the objects, or the list of constructors

5   associated with at least one of the objects.

1   29.   (Original)   A system for debugging an application program from a

2   workstation, wherein the application program resides on a server that is remote from the

3   workstation, the system comprising:

4   a user interface operable to:

5   allow a user to invoke the application program from the workstation;

6   present a user frame at the workstation that includes information generated by the

7   application program;

8   present a debug view option to generate a debug frame of the application

9   program; and

10   present the debug frame at the workstation when the debug view option is

11   selected.

1   30.   (Original)   The system of Claim 29 wherein the user interface is further

2   operable to:

3   present a user view option at the workstation; and

4   present the user frame when the user view option is selected.

1   31.   (Original)   The system of Claim 29 wherein the debug frame at the

2   workstation includes a list of one of more components of the application program.

1   32.   (Original)   The system of Claim 29 wherein the application program generates

2   instructions and information for displaying a web page at the user interface.

1   33.   (Original)   The system of Claim 29 wherein the user interface is a web

2   browser operable to communicate with the server.

1   34.   (Original)   The system of Claim 31 further wherein the user interface is

2   operable to present additional information about at least one of the components when the

3   component is selected by the user.

1   35.   (Original)   The system of Claim 34, wherein the additional information

2   includes at least one of: the name of the component, the fields of the component, the methods

3   associated with the component, or the constructors associated with the component.

1   36.   (Original)   A system for debugging an application program from a

2   workstation, wherein the application program resides on a server that is remote from the

3   workstation, the system comprising:

4   means for executing the application program on the server when the application program

5   is invoked from the workstation;

6   means for generating information for a user frame at the workstation that includes

7   information generated by the application program; and

8   a debugger program operable to generate information for a debug frame at the

9   workstation when a debug view option is selected from the workstation, wherein

10   the debug frame includes information about components of the application

11   program.

1   37.   (Original)   The system of Claim 36 wherein the debugger program is operable

2   to save the information for the user frame when the debug view option is selected.

1   38.   (Original)   The system of Claim 37 wherein the debugger program is operable

2   to restore the saved information for the user frame when a user view option is selected at the

3   workstation.

1   39.   (Original)   The system of Claim 36 wherein the debugger program is operable

2   to generate a list of objects in the application program.

1   40.   (Original)   The system of Claim 39 wherein the debugger program is operable

2   to generate at least one of: a list of methods associated with one or more of the objects in the

3   application program, or a list of constructors associated with one or more of the objects in the

4   application program.

1   41.   (Original)   The system of Claim 36 wherein the debugger program is operable

2   to use reflection technology to generate at least one of: a list of objects in the application

3   program, a list of methods associated with one or more of the objects, and a list of constructors

4   associated with one or more of the objects.

1   42.   (Original)   The system of Claim 36 wherein the application program generates

2   instructions and information for displaying a web page.

1   43.   (Original)   The system of Claim 36 wherein the server is operable to

2   communicate with a web browser program at the workstation.

1   44.   (Original)   The system of Claim 36 wherein the application program accesses

2   at least one of: internal code, private code, or public code.